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Volume Title: The Flow of Capital Funds in the Postwar Economy

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Volume Publisher: UMI

Volume ISBN: 0-870-14112-0

Volume URL: <http://www.nber.org/books/gold65-1>

Publication Date: 1965

Chapter Title: The Market for State and Local Government Securities

Chapter Author: Raymond W. Goldsmith

Chapter URL: <http://www.nber.org/chapters/c1686>

Chapter pages in book: (p. 187 - 207)

CHAPTER 7

The Market for State and Local Government Securities¹

Character of the Market

THE market for state and local government securities is one of the best-defined sectors of the capital market, identified chiefly by the exemption of these securities from federal income tax. As a result of this privilege, high-grade state and local government securities sell at a lower yield than U.S. government or corporate securities of the same maturity or comparable quality. This makes state and local government securities unattractive to those investors whose income is tax exempt (such as government insurance and trust funds, private pension funds, nonprofit institutions, credit unions, and mutual investment companies) or whose income is subject to only relatively low rates of tax (such as mutual savings banks, savings and loan associations, life insurance companies, and individuals with low incomes). On the other hand, these securities have a special attraction for financial institutions subject to the full corporate income tax, primarily commercial banks and property insurance companies, and for individuals in the higher income tax brackets. This attraction, however,

¹ The very brief description of the institutional aspects of the market for state and local government securities is based on Roland I. Robinson's *Postwar Market for State and Local Government Securities* (Princeton for NBER, 1960). The statistics used here, however, sometimes differ slightly from Robinson's. Because of the availability of Robinson's study, this summary does not deal with the relation of the level and movements of the yield on state and local government securities to the level and change in relevant tax rates.

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depends on the relative yield difference between state and local government securities and otherwise equivalent other securities.

The demand for state and local government securities thus essentially depends on the funds available for investment by the three above-mentioned groups (funds which may come from current savings or from the liquidation of other assets), on interest rate differentials, and on income tax rates. The supply of tax-exempt securities, on the other hand, is mainly determined by the difference between the capital expenditures of the state and local government and their gross savings (current income minus current expenditure, excluding capital consumption allowances).

The character of the market for these securities is also influenced by a number of additional economic and institutional factors:

1. Regular issues of state and local government securities (so-called "full faith and credit obligations") are offered in serial form, among which final maturities of twenty, twenty-five, and thirty years predominate. Revenue bonds, however, are usually issued as term securities with a maturity of thirty to forty years.² The serial form increases the range of potential buyers to include both investors primarily interested in short-term securities, such as commercial banks, and those preferring long-term bonds, such as property insurance companies and individuals.

2. The demand for these securities is further encouraged by tailoring the securities to the special needs, primarily determined by tax considerations, of important groups of investors. These needs are responsible for some issues, usually very early or late maturities, with abnormally high coupon rates which enable the buyers to take advantage of certain tax provisions on capital gains or losses.

3. The market for state and local government securities is entirely over the counter and in the hands of specialists, either separate departments of commercial banks and investment banking houses or firms which limit their activities to these securities.

4. Most new issues of state and local government securities are sold through competitive bidding. One of the results of this method seems to be that the cost of selling small issues is not significantly higher than that of large issues.

5. Considerable support for the market is provided by the issuance in serial form. Each year a large amount of outstanding securities is

² Robinson, *Postwar Market*, p. 46.

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retired and these retirements provide substantial funds available for reinvestment in state and local government securities. Retirements averaged less than \$1 billion in 1947-51, but rose to an average of over \$2 billion in 1954-58 as the retirements from the heavy postwar issues began to make their weight felt (see Table 59).

6. Secondary transactions in state and local government securities are relatively small compared to new offerings, and their volume has tended to move inversely to that of new offerings.

7. Revenue obligations, issued mostly for financing highways, constitute a fairly definite submarket of growing importance. At the end of the fiscal year 1958, about 36 per cent of total state and local government long-term debt consisted of revenue obligations, compared to only 11 per cent ten years earlier.³ Slightly more than one-fourth of all new issues of state and government securities during the postwar period were revenue obligations, the proportion rising from about one-fifth in 1946-51 to almost one-third in 1952-58.⁴ Because revenue obligations are not backed by the "full faith and credit" of the issuing state and local authorities, they generally sell at a yield of $\frac{1}{2}$ to $1\frac{1}{2}$ per cent above regular state and local government issues. It is unfortunately not possible to separate the holdings of revenue bonds in the portfolios of the main holder groups, but it is thought that they are held to a larger extent by individuals than by financial institutions compared to full faith and credit obligations.⁵

8. Another still smaller submarket is constituted by the bonds of public housing authorities, which have been offered since 1951. Since the U.S. Treasury guarantees the deficits of these authorities, the bonds are regarded as equivalent to federal government obligations. Public Housing Authority bonds have accounted for 5 per cent of all state and local government securities issued during the period 1951-58.⁶

³ The 1958 figure is from *Summary of Governmental Finances in 1958* (U.S. Bureau of the Census, Government Division, p. 18); earlier figures are from Robinson, *Postwar Market*, p. 203.

⁴ *Ibid.*, p. 204, and *Federal Reserve Bulletin*, August 1959, p. 1015.

⁵ In mid-1956 insured commercial banks held only about 11 per cent of all revenue obligations compared to 28 per cent in full faith and credit obligations (*Assets, Liabilities and Capital Accounts, Commercial and Mutual Savings Banks*, Federal Deposit Insurance Corporation, Report No. 45, June 30, 1956, p. 62, and *Summary of Governmental Finances in 1956*, p. 33).

⁶ *Federal Reserve Bulletin*, August 1959, p. 1015; *Thirteenth Annual Report*, Housing and Home Finance Agency, 1959, p. 207.

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9. State and local government securities have been subject to relatively wide price fluctuation considering their high quality. These fluctuations have been wider than those in either high-grade corporate bonds or in Treasury securities of comparable maturity.

10. Within the market for state and local government securities, the yield differentials associated with difference in quality have declined over the postwar period. While the narrowing has not been pronounced in absolute terms, it has been quite considerable relative to the rising level of yield rates.

11. During the postwar period, approximately two-fifths of all state and local government securities have been issued for productive purposes, i.e., highways, water supply, sewerage, other enterprises, bridges, tunnels, ports and airports, and industrial buildings. About one-third has been issued for welfare purposes, primarily schools and secondarily housing and hospitals. Issues to provide funds for aid to veterans have amounted to less than 10 per cent of the total, mostly during the early part of the postwar period. Refunding issues have been almost negligible.⁷

12. The differential between the yield on state and local government securities and taxable securities of comparable quality and maturity, which can be regarded as a measure of the capitalized value of the tax-exemption preference, has fluctuated widely during the postwar period, although there has been only one substantial change in tax rates, the increase occurring around 1950. Table 58 shows, as a basis for analysis, first the differential between the yield on an average of state and local government securities and the yields on long-term Treasury bonds and on an average of corporate bonds of the first four rating groups, and secondly the differential between the yield on high-grade (Aaa) state and local government securities and the yields on long-term Treasury securities and on corporate bonds.

Closer study suggests that the main factor in the movement of the differentials was the relative supply of state and local government securities as measured by the ratio of net issues of these securities to the net issuance of all main capital market instruments. This positive relationship was fairly pronounced, although not entirely regular. In years in which the share of state and local government securities in the total value of capital market issues was high or rising, the differential also was at a high level or showed an increase. Similarly, low

⁷ Robinson, *Postwar Market*, p. 40.

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TABLE 58

YIELD DIFFERENTIALS OF TAX-EXEMPT SECURITIES, 1946-58
(per cent of yield of security compared)

	Averages of State and Local Government Bonds ^a Compared with		Highest-Grade State and Local Government Bonds ^b Compared with	
	Long-Term Treasury Bonds (1)	Average Corporate Bonds Outstanding (2)	Long-Term Treasury Bonds (3)	Highest-Grade Corporate Bonds Outstanding (4)
1946	-33	-47	-50	-57
1947	-18	-36	-36	-44
1948	-5	-24	-23	-34
1949	-7	-27	-29	-38
1950	-16	-32	-33	-40
1951	-23	-36	-37	-44
1952	-17	-30	-33	-39
1953	-4	-18	-21	-28
1954	-3	-22	-19	-30
1955	-8	-21	-22	-29
1956	-4	-18	-18	-26
1957	3	-15	-11	-20
1958	-2	-19	-15	-23
1946-49	-14	-32	-32	-42
1949-54	-13	-28	-29	-37
1954-58	-3	-18	-17	-25

Source: See notes to Table 48.

^a Aaa, Aa, and Baa bond.

^b Aaa bonds.

levels or decreases in the new issue ratio were associated with low or declining differentials.

Possibly the most interesting feature is the level of the differential between high-grade state and local government bonds and high-grade corporate bonds, which was about 40 per cent during Cycles I and II and about 25 per cent in Cycle III. All of these values are below the rates of either the corporate income tax (52 per cent during the second half of the period) or the marginal rates applicable to wealthy individuals. Thus, the tax-exemption privilege was sold in the market at considerably less than its value to most holders of state and local government securities. Since 1953 the market value of the tax-exemption privilege actually has been about one-half of the corporate tax rate, and at about the first bracket rate of the personal income tax (20 per cent). As a consequence, the federal government has lost more of potential tax revenue than would have been needed to compensate state and local governments for the relatively slight saving in interest costs which accrued to them as a result of the lower yield of tax-exempt

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securities. The reasons for this low valuation of the tax-exemption privilege by the market are complicated. Possibly the most important factor was the increasing level of new issues of state and local government securities, which made it necessary to tap layers of buyers for whom the tax-exemption privilege was of relatively little value because of their tax status or because of basic predilection for equity securities. This seems to have been the case particularly for some financial institutions, such as mutual savings banks and property insurance companies, and for some of the individual purchasers of tax-exempt securities.

Developments During the Postwar Period

There is no point in commenting separately on each of Tables 59 to 64. It will suffice to summarize the main features of the market for state and local government securities during the postwar period which are disclosed by the tables and by Chart 15.

TABLE 59
CAPITAL EXPENDITURES AND SECURITY ISSUES OF
STATE AND LOCAL GOVERNMENTS, 1946-58
(billion dollars)

	Gross Saving (1)	Gross Capital Expenditures (2)	Net Acquisition of Financial Assets (3)	Security Issues		
				Net	New Long-Term Issues (5)	Retirements (6)
1946	2.31	2.02	.29	-.13	1.16	1.29
1947	3.04	3.07	-.03	1.41	2.32	.91
1948	3.01	4.11	-1.10	2.21	2.69	.48
1949	4.07	5.76	-1.69	2.35	2.91	.56
1950	4.57	6.45	-1.88	3.11	3.53	.42
1951	5.97	7.14	-1.17	2.41	3.19	.78
1952	6.65	8.17	-1.52	3.18	4.40	1.22
1953	7.44	8.60	-1.16	3.58	5.56	1.98
1954	7.87	9.64	-1.77	4.18	6.97	2.79
1955	8.26	10.94	-2.68	3.48	5.98	2.50
1956	9.18	11.52	-2.34	3.32	5.45	2.13
1957	10.10	13.36	-3.26	4.87	6.96	2.09
1958	9.73	15.13	-5.40	5.92	7.45	1.53
1946-49	3.08	3.69	-0.60	1.58	2.35	0.77
1949-54	6.12	7.61	-1.49	3.11	4.32	1.22
1954-58	9.08	12.05	-2.97	4.18	6.40	2.22

Source: National Balance Sheet, Vol. II, unless otherwise specified.
 Cols. 1-3: Table VII-6, lines IV-3, I-7, and II-21 minus III-14.
 Col. 4: Table VIII-c-12, line 6.
 Col. 5: Federal Reserve Bulletin, various issues (e.g., 1955, p. 684; 1957, p. 446; and 1961, p. 1450).
 Col. 6: Col. 5 minus col. 4.

TABLE 60
DISTRIBUTION OF HOLDINGS OF STATE AND LOCAL SECURITIES, 1945-58
(per cent)

	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
1. Nonfarm households	56.3	55.9	54.2	53.4	51.0	47.0	44.5	43.7	43.9	41.2	41.7	42.3	42.4	40.6
2. Nonfinancial corporations	1.5	1.5	1.6	1.7	1.7	1.8	1.8	1.8	1.9	2.4	2.6	2.7	2.7	2.7
3. Finance	33.0	34.0	36.3	37.5	39.8	43.3	45.2	45.4	46.7	50.2	49.9	49.3	49.2	51.1
a. Govt. insurance and pension funds	5.6	5.2	5.3	5.4	5.7	5.8	5.6	5.4	5.5	5.7	6.0	6.4	6.7	6.8
b. Commercial banks	18.8	20.9	23.5	23.0	24.3	27.0	28.3	28.5	27.5	29.0	27.1	25.7	25.2	27.0
c. Mutual savings banks	0.4	0.3	0.3	0.3	0.3	0.3	0.5	0.9	1.0	1.4	1.4	1.3	1.2	1.2
d. Life insurance	3.4	2.9	2.7	3.5	3.9	3.8	3.6	3.2	3.3	4.3	4.3	4.5	4.3	4.4
e. Fire and casualty insurance	1.1	1.1	1.4	2.1	2.8	3.5	4.5	5.2	6.7	7.8	8.9	9.6	9.9	10.1
f. Other private insurance	1.7	1.8	1.7	1.6	1.4	1.2	1.1	1.0	0.9	0.9	0.9	0.9	0.8	0.7
g. Other finance	1.9	1.8	1.3	1.6	1.4	1.7	1.7	1.1	1.7	1.2	1.2	0.9	1.1	1.0
4. State and local governments	6.8	6.3	5.7	5.1	5.7	6.1	6.1	5.8	5.5	5.1	4.8	4.6	4.3	4.0
5. Federal government	2.4	2.3	2.2	2.3	1.8	1.9	2.5	3.2	2.1	1.1	1.0	1.1	1.4	1.6
6. Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
7. Total (billion dollars)	21.17	21.04	22.45	24.66	27.01	30.12	32.53	35.71	39.29	43.47	46.95	50.27	55.14	61.06

Source: National Balance Sheet, Vol. II, Table IV-b-14.

Note: Components may not add to totals because of rounding here and elsewhere in this chapter.

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TABLE 61
STRUCTURAL CHANGES IN OWNERSHIP OF STATE AND LOCAL GOVERNMENT SECURITIES DURING THE POSTWAR PERIOD

	NET FLOWS (ANNUAL AVERAGES)									
	Outstandings (billion dollars)		Aggregate Net Flows, 1946-58 (billion dollars)	Amounts (billion dollars)			Distribution (per cent)			
	1945 (1)	1958 (2)		Cycle I 1946-49 (4)	Cycle II 1949-54 (5)	Cycle III 1954-58 (6)	Cycle I Cycle II Cycle III 1946-49 1949-54 1954-58 (7) (8) (9)			
1. Nonfarm households	11.92	24.79	12.87	0.54	0.82	1.63	34.2	26.4	39.0	
2. Nonfinancial corporations	0.32	1.63	1.31	0.04	0.09	0.17	2.5	2.9	4.1	
3. State and local governments	1.45	2.44	0.99	0.01	0.16	0.06	0.6	5.1	1.4	
4. Federal government	0.50	0.97	0.47	0.01	0.02	0.06	0.6	0.6	1.4	
5. Financial instit., total	6.98	31.23	24.25	0.97	2.02	2.27	61.4	65.0	54.3	
a. Commercial banks	3.97	16.50	12.53	0.64	1.12	0.88	40.5	36.0	21.1	
b. Mutual savings banks	0.09	0.73	0.64	0	0.09	0.05	0	2.9	1.2	
c. Life insurance	0.72	2.68	1.96	0.10	0.12	0.24	6.3	3.9	5.7	
d. Fire and casualty insurance	0.24	6.15	5.91	0.13	0.47	0.70	8.2	15.1	16.7	
e. Fraternal orders	0.37	0.43	0.06	0	0	0.01	0	0	0.2	
f. Other finance	0.40	0.60	0.20	0	0.04	0	0	1.3	0	
g. Government insurance and pension funds	1.19	4.14	2.95	0.10	0.18	0.39	6.3	5.8	9.3	
6. Total	21.17	61.06	39.89	1.58	3.11	4.18	100.0	100.0	100.0	

Source: National Balance Sheet, Vol. II, Cols. 1-2 from Table IV-B-14; cols. 3-9 from Table VIII-B-14.

TABLE 62
DISTRIBUTION OF FLOW OF FUNDS, STATE AND LOCAL GOVERNMENT SECURITIES, 1946-58
(per cent)

	1946 ^a	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
1. Nonfarm households	-123.1	29.1	44.8	26.0	12.2	12.9	36.4	45.0	15.8	48.3	50.6	43.5	24.0
2. Nonfinancial corporations	0	2.8	2.3	2.1	2.3	2.1	1.9	2.5	7.9	5.2	3.3	3.1	2.2
3. Finance	+138.5	70.2	49.8	63.4	73.6	69.2	48.3	59.2	83.5	45.1	41.6	47.8	69.4
a. Govt. insurance and pension funds	-76.9	7.1	6.8	8.9	6.1	2.9	4.1	6.7	7.4	9.8	12.0	9.2	7.8
b. Commercial banks	+330.8	62.4	17.2	37.9	50.5	45.0	31.0	17.6	42.3	3.2	6.0	20.9	43.6
c. Mutual savings banks	-23.1	0	0.5	0.9	0	2.5	5.3	2.5	4.5	1.1	0.9	0.2	0.8
d. Life insurance	-84.6	0	11.8	7.7	3.2	0.8	-0.6	4.2	13.2	5.5	6.9	2.3	5.1
e. Fire and casualty insurance	0	5.7	9.5	9.4	10.0	16.2	13.2	20.9	18.7	22.7	19.0	12.7	12.0
f. Other private insurance	+7.7	0.7	4.1	-0.4	-0.3	-0.4	0	0.3	0.5	1.4	0	-0.4	0.2
g. Other finance	-15.4	-5.7	0	-0.9	4.2	2.1	-4.7	7.0	-3.1	1.4	-3.3	2.9	0
4. State and local governments	-100.0	-3.5	0	11.9	9.6	5.0	3.4	2.5	0.7	1.4	2.1	1.4	0.8
5. Federal government	-15.4	1.4	3.2	-3.4	2.3	10.8	10.0	-9.2	-7.9	0	2.4	4.1	3.5
6. Total	-100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
7. Total (billion dollars)	-13	1.41	2.21	2.35	3.11	2.40	3.19	3.58	4.18	3.48	3.32	4.87	5.92

Source: National Balance Sheet, Vol. II, Table VIII-b-14.

^aThe signs have been reversed to match the sign of the numerator.

TABLE 63
SHARE OF STATE AND LOCAL SECURITIES IN ASSETS OF EACH SECTOR, 1945-58
(per cent)

	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
1. Nonfarm households	1.9	1.7	1.6	1.6	1.7	1.5	1.5	1.5	1.6	1.5	1.5	1.5	1.6	1.5
2. Nonfinancial corporations	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
3. Finance	2.0	2.0	2.2	2.4	2.6	3.0	3.2	3.3	3.5	3.9	3.9	3.9	4.1	4.4
a. Govt. insurance and pension funds	4.6	3.7	3.6	3.6	3.9	4.3	4.0	3.9	4.2	4.5	4.8	5.2	5.7	6.3
b. Commercial banks	2.5	2.9	3.4	3.6	4.1	4.8	5.1	5.4	5.6	6.2	6.0	5.9	6.2	6.8
c. Mutual savings banks	0.5	0.3	0.3	0.3	0.4	0.4	0.6	0.6	1.3	1.5	2.0	2.0	1.9	1.9
d. Life insurance	1.6	1.3	1.2	1.6	1.7	1.8	1.7	1.5	1.6	2.2	2.2	2.3	2.3	2.5
e. Fire and casualty insurance	3.1	3.0	3.5	5.1	6.3	8.0	10.0	11.6	15.0	17.0	19.2	21.3	23.7	24.0
f. Other private insurance	19.9	19.2	18.7	17.8	16.5	15.2	14.1	13.0	12.4	12.3	12.8	12.1	11.6	10.9
g. Other finance	5.5	7.0	6.5	7.4	6.4	7.6	8.4	5.7	8.7	5.6	6.0	4.8	5.8	5.1
4. State and local governments	2.1	1.6	1.3	1.2	1.5	1.6	1.6	1.5	1.5	1.5	1.4	1.3	1.3	1.2
5. Federal government	0.6	0.8	0.7	0.7	0.6	0.6	0.8	1.1	0.8	0.5	0.4	0.5	0.7	0.8
6. Total	1.4	1.3	1.2	1.3	1.3	1.3	1.3	1.4	1.5	1.5	1.5	1.5	1.6	1.6

Source: National Balance Sheet, Vol. II, Tables III-1; III-4, III-5, 5b, 5c, 5d, 5h, 5i, 5k, III-6, III-7; line 6 from Table I.

TABLE 64
SHARE OF NET PURCHASES OF STATE AND LOCAL GOVERNMENT SECURITIES
IN TOTAL NET USES OF FUNDS OF SECTORS, 1946-58
(per cent)

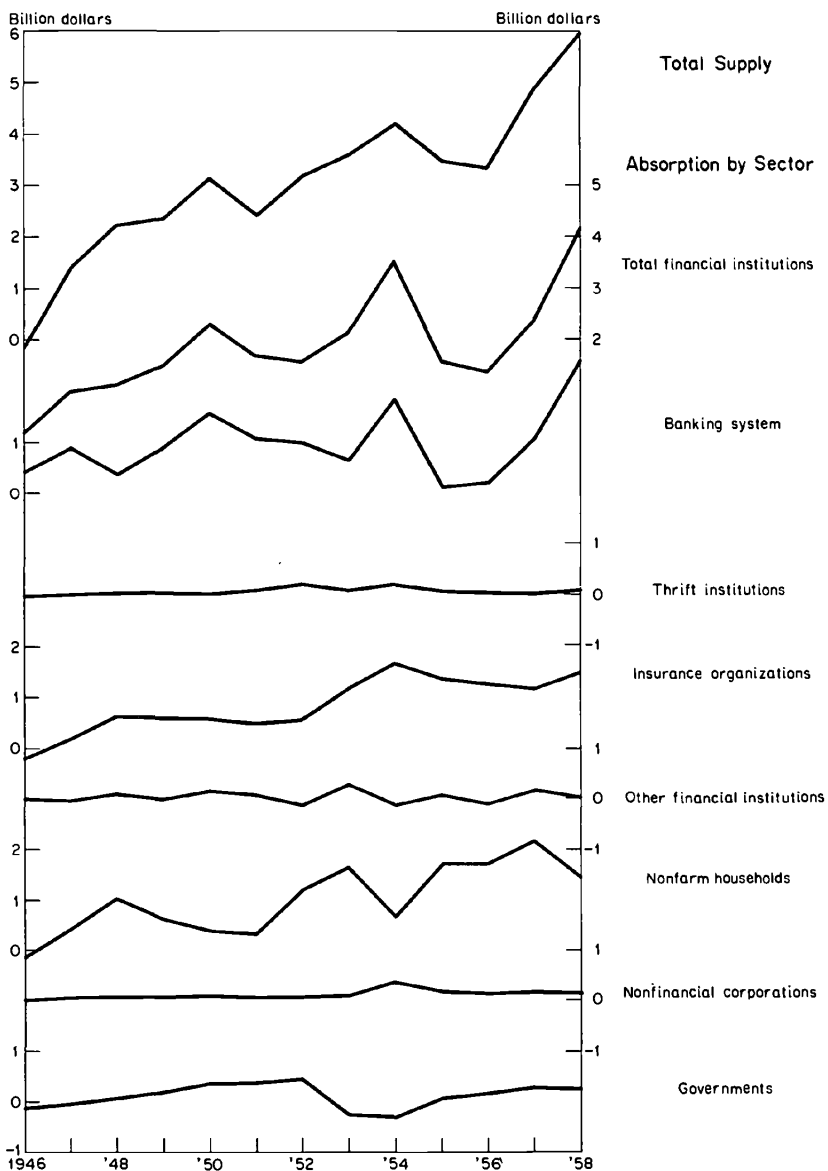
	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
1. Nonfarm households	-4	1.0	2.3	1.4	0.7	0.5	1.8	2.3	1.0	2.0	1.9	2.5	1.7
2. Nonfinancial corporations	0	0.1	0.2	0.3	0.2	0.1	0.2	0.3	1.0	0.3	0.2	0.3	0.4
3. Finance	11.2	4.2	6.4	12.2	9.0	5.8	4.7	8.5	11.9	4.3	4.6	8.0	10.9
a. Govt. insurance and pension funds	-2.7	2.6	4.3	8.3	14.5	1.7	3.0	7.1	11.5	10.5	11.2	15.8	37.4
b. Commercial banks	-4.1	15.0	-108.6	28.5	13.7	10.1	10.7	14.0	18.7	1.3	2.9	19.0	16.3
c. Mutual savings banks	-1.7	0	1.0	2.0	0	6.1	9.6	4.7	8.9	2.0	1.5	0.5	1.9
d. Life insurance	-3.0	0	6.9	4.5	2.3	0.5	-0.4	2.9	10.2	3.4	4.0	2.0	5.4
e. Fire and casualty insurance	0	6.7	18.6	19.8	32.0	39.8	31.6	51.0	67.2	78.2	101.6	63.9	64.5
f. Other private insurance	8.3	10.5	0	-4.3	-6.8	-5.4	-2.8	4.3	11.3	19.8	-1.7	45.5	1.7
g. Other finance	1.1	9.8	15.3	-3.4	18.1	500.0	-37.5	61.0	-7.6	25.0	275.0	21.2	0
4. State and local governments	-5.6	-1.1	0	4.3	3.9	1.4	1.1	0.8	0.2	0.4	0.6	0.5	0.3
5. Federal government	0.1	1.3	1.3	-3.7	0.8	3.2	9.7	-8.4	45.8	0	14.5	13.2	9.1
6. Total	-0.2	1.1	2.0	2.7	1.9	1.5	2.1	2.4	2.7	1.7	1.7	2.5	2.9

Source: National Balance Sheet, Vol. II, Table VII-1, VII-4, VII-5, 5b, 5c, 5d, 5h, 5i, 5k, 5m, VII-6, and VII-7; line 6 from Table V.

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CHART 15

MARKET FOR STATE AND LOCAL GOVERNMENT SECURITIES:
SUPPLY AND ABSORPTION BY SECTOR, 1946-58



Source: *National Balance Sheet*, Vol. II, Tables VIII-c-12 and VIII-b-14.

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1. A definite, although not rigid, relationship existed between new and net issues of state and local government securities, on the one hand, and the capital expenditures of state and local government, on the other (Table 59). Net new issues and total offerings of these securities amounted to about two-fifths and close to three-fifths, respectively, of the year's capital expenditures for the entire postwar period and for the first two cycles as well.

2. The increase in the volume of net issues of state and local government securities was considerably larger in Cycle II than in Cycle I and larger again, although by a smaller margin, in Cycle III than in Cycle II. The share of these securities in the net issuance of the five main types of capital market instruments taken together varied between one-fifth and one-seventh. However, their share in the ten capital market instruments was stable at almost one-tenth of the total for all three cycles (Table 43). Thus, if all ten capital market instruments are considered, the relative position of state and local government securities in the capital market was unchanged during the postwar period.

3. In absolute terms, net issues of state and local government securities were at their highest level in 1950, 1954, and 1958, i.e., in recession years or in the early stage of recovery (1950). They were low or declining in 1955-56 at the top of the business upswing. In relation to the total of the ten types of capital market instruments, net issues of state and local government securities were highest in 1948-49, 1953-54, and 1957-58 (Table 46). Here, the cyclically inverted relationship of net issues of state and local government securities to other important capital market instruments is even clearer.

4. While the amount of state and local government securities outstanding tripled from \$20 to \$60 billion between 1945 and 1958 (Table 61), the holdings of the main investor groups increased at different rates so that the distribution of holdings changed appreciably (Table 60). Nonfarm households held 56 per cent of the total outstanding at the beginning of the postwar period, but about 41 per cent at the end, most of the relative decline occurring in holdings outside of personal trust funds. Governmental holdings (excluding those in government insurance and pension funds) also declined from almost 10 per cent in 1945 to not much over 5 per cent in 1958. As a result, the share of financial institutions in total state and local government securities outstanding rose from one-third to one-half. Most of the increase was contributed by two groups: commercial banks, whose share

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rose from less than 20 to more than 27 per cent, and fire and casualty insurance companies, whose share shot up from 1 to 10 per cent.

5. These differences in the rate of growth of holdings of various investor groups are clearly reflected in the changes in the distribution of net flows (i.e., net purchases and sales). Of total net purchases of \$40 billion, households absorbed only approximately 30 per cent, compared to their share in holdings of over one-half at the beginning of the postwar period; governments absorbed 4 per cent, and nonfinancial corporations 3 per cent. This left more than 60 per cent of the net supply of state and local government securities to be absorbed by financial institutions, commercial banks alone taking more than 30 per cent and fire and casualty insurance companies 15 per cent (Table 61).

6. Compared to these differences, differences in the distribution among the main holder groups from one of the three postwar cycles to another were moderate. Thus, the share of all financial institutions together in the net supply of state and local government securities in the three cycles varied from 61 to 65 to 54 per cent. Variations were, of course, more pronounced for individual groups of financial institutions. Thus, the share of commercial banks declined from approximately two-fifths of the total in the first two cycles to only one-fifth in the third cycle, while that of fire and casualty insurance companies rose from one-twelfth in the first cycle to about one-sixth in the second and third cycles.

7. Further important differences exist in the annual distribution of net flows (Table 62). The share of absorption by financial institutions was highest in 1950-51, in 1954, and in 1958, i.e., during or close to recessions, and was lowest in 1948, 1952-53, and 1955-57 at the top of the upswings. The countercyclical behavior was most pronounced for commercial banks. The share of fire and casualty insurance companies, on the other hand, moved irregularly upward.

8. The reason for some of these changes in the net flows of funds in the market for state and local government securities are better observed in Table 63, which shows the share of these securities in total assets, and in Table 64, which provides the same information on the basis of total uses of funds.

9. For households, the proportion of state and local government securities in their total assets was low throughout the postwar period, varying only between 1.5 and 1.9 per cent. Similarly, the share of

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these in total uses of funds was rather moderate. The relevant figures, however, are not those for all households together, but those for households with high income who are the buyers of state and local government securities. Unfortunately, figures are lacking to make the comparison separately for these households on an annual basis.

10. Among commercial banks, the share of state and local government securities in total assets showed a marked upward trend from $2\frac{1}{2}$ per cent in 1945 to 7 per cent in 1958. In addition, Table 64 shows that there were countercyclical variations, increasing the share in 1949–50, 1953–54, and 1957–58, because state and local government securities become an attractive and important outlet for funds when the demand for commercial loans falls off, as happens during periods of recession. When the demand for commercial loans is strong, only a small proportion of the total increase in assets is invested in state and local government securities. Thus commercial banks used less than 5 per cent of total net funds for the increase of their portfolio of state and local government securities in 1955 and 1956, and only 10 per cent or less in 1951–52, compared to a period average of 16 per cent and ratios as high as 19 per cent in 1954 and 1957 and 28 per cent in 1949.

11. In the case of fire and casualty insurance companies, the rapid increase in the holdings of state and local government securities during the postwar period, which brought their share in total assets up from 3 to 24 per cent and absorbed about a third of the total uses of their funds, was primarily a substitution for Treasury securities, the holdings of which were sharply reduced in relative terms. The share of all government securities, remained close to one-half of total assets with only minor variations during the postwar period (see Tables 53 and 54).

12. State and local government securities became of growing importance for mutual savings banks, increasing their share in total assets from less than $\frac{1}{2}$ per cent in the early postwar period to 2 per cent in 1954 and accounting for 5–9 per cent of total uses of funds during the years 1951–54. Since most mutual savings banks were subject to only very light income taxation, the reasons for this increase are not evident. (A large proportion of the securities in question may have been acquired by the minority of savings banks with capital accounts in excess of 12 per cent of deposits, for whom the tax-exemption privilege is of great value.)

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Historical Background

In the case of state and local government securities, it is particularly instructive to take a longer view and to look, even if only superficially, at the market before 1945.

The main difference between the market for these securities in the postwar period and that before 1940 is that the exemption from the federal income tax was of no value before World War I and was worth much less between the wars than it has been since World War II. This change is dramatically reflected both in the differences of the distribution of holdings of state and local government securities among the main sectors in the postwar period and earlier (Table 65 and Chart 16), and in the share of these securities in the assets of different holder groups (Table 66 and Chart 17).

Before World War I, when interest differentials may be regarded as the main influence, individuals held between one-fourth and one-third of all state and local government securities outstanding, financial institutions approximately two-fifths, and state and local governments (mostly in sinking and trust funds) more than one-fourth. The holdings of the latter group undoubtedly were not primarily determined by interest rate considerations, but rather were the result of inertia, lack of financial experience on the part of state and local government treasurers, and the desire to reserve funds for the use of one's own state or locality. Among financial institutions, mutual savings banks were by far the most important holders, but their share in the total of state and local government securities outstanding declined from almost 30 per cent in 1900 to less than 20 per cent before World War I. Commercial banks were also substantial holders of state and local government securities, accounting for about one-tenth of the total amount outstanding.

At the benchmark dates of 1929 and 1939, the share of the groups that could benefit substantially from tax exemption was considerably higher than in 1900 and 1912. Individuals now held more than two-fifths of the total amount outstanding, and it may be assumed that these holdings were increasingly concentrated in the hands of the individuals in higher income groups. Some evidence of such a trend is indicated by the increase in the share of state and local governments held by personal trust funds from less than one-tenth in 1900-12 to

TABLE 65
DISTRIBUTION OF STATE AND LOCAL GOVERNMENT SECURITIES
AMONG HOLDER GROUPS, 1900-58
(per cent)

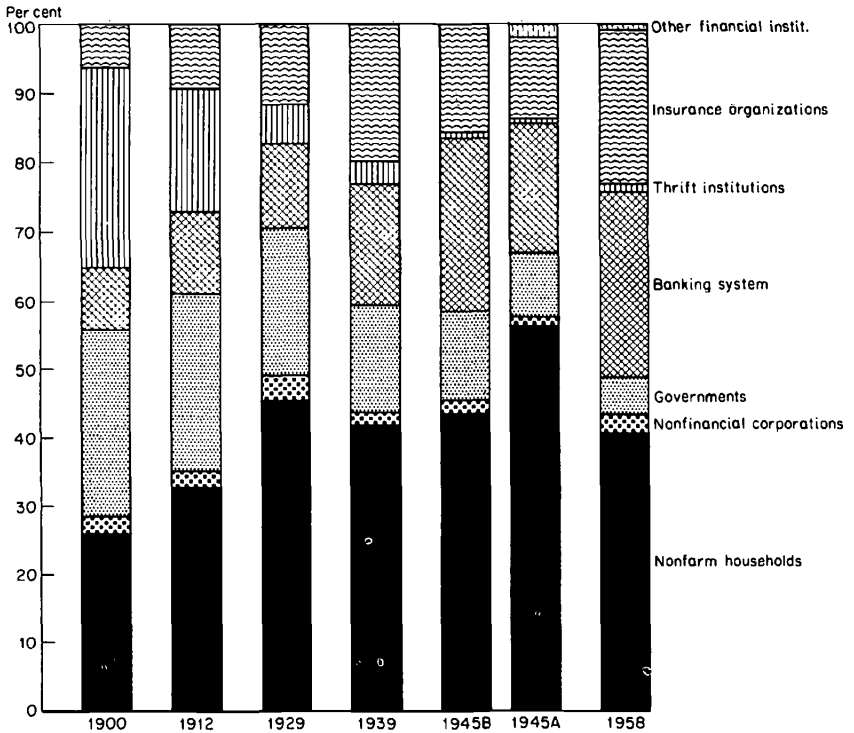
	1958 (1)	1945A (2)	1945B (3)	1939 (4)	1929 (5)	1912 (6)	1900 (7)
1. Nonfarm households	40.6	56.3	43.6	41.9	45.3	32.8	25.9
2. Nonfinancial corporations	2.7	1.5	1.7	1.9	3.8	2.3	2.5
3. State and local governments	4.0	6.8	10.3	14.0	21.5	26.0	27.5
4. Federal government	1.6	2.4	3.0	1.5	0	0	0
5. Financial institutions, total	51.1	33.0	41.3	40.7	29.4	39.0	44.1
a. Commercial banks	27.0	18.8	25.0	17.7	12.2	11.9	9.0
b. Mutual savings banks	1.2	0.4	0.6	3.1	5.4	17.8	28.8
c. Savings and loan associations	0	0	0.2	0.1	0.2	0.1	0
d. Life insurance	4.4	3.4	4.5	8.9	3.4	4.1	3.5
e. Fire and casualty insurance	10.1	1.1	1.7	1.6	2.5	2.7	1.9
f. Other private insurance	0.7	1.7	2.3	2.7	2.9	2.2	0.6
g. Government insurance and pension funds	6.8	5.6	6.9	6.6	2.7	0.3	0.2
h. Other finance	1.0	1.9	0	0	0	0	0
6. Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
7. Total (billion dollars)	61.1	21.2	15.9	19.8	16.9	4.4	2.0

Source: National Balance Sheet, Vol. II; cols. 1-2 from Table IV-b-14; cols. 3-7 from Table IV-b-14a.

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about one-fifth in 1929 and 1939.⁸ The share of commercial banks in total state and local government securities outstanding increased slowly, while that of mutual savings banks fell rapidly, particularly between World War I and the 1920's.

CHART 16
DISTRIBUTION OF STATE AND LOCAL GOVERNMENT SECURITIES
AMONG MAIN HOLDER GROUPS, 1900-58



Source: Table 65.

The effects of tax exemptions on the distribution of state and local government securities outstanding are also reflected in the share of these securities in the portfolios of different investor groups. The share is higher for the two dates after tax exemption became valuable for households, personal trust funds, and commercial banks, while it is lower for state and local governments, government insurance and

⁸ *Study of Saving*, Vol. III, Tables W-9, W-10, W-12, and W-14.

TABLE 66
SHARE OF STATE AND LOCAL GOVERNMENT SECURITIES IN TOTAL
ASSETS OF HOLDER GROUPS, 1900-58
(per cent)

	1958 (1)	1945A (2)	1945B (3)	1939 (4)	1929 (5)	1912 (6)	1900 (7)
1. Nonfarm households	1.5	1.9	1.1	2.2	1.7	1.2	0.8
2. Nonfinancial corporations	0.2	0.1	0.1	0.2	0.3	0.2	0.1
3. State and local governments	1.2	2.1	2.3	5.4	8.7	8.6	10.2
4. Federal government	0.8	0.6	0.6	1.2	0	0	0
5. Financial institutions, total	4.4	2.0	1.9	4.7	3.7	4.9	5.3
a. Commercial banks	6.8	2.5	2.5	5.3	3.1	2.4	1.8
b. Mutual savings banks	1.9	0.5	0.5	5.2	9.2	19.6	23.9
c. Savings and loan associations	0	0	0.4	0.2	0.4	0.3	0
d. Life insurance	2.5	1.6	1.6	6.0	3.3	4.2	4.1
e. Fire and casualty insurance	24.0	3.1	3.5	6.5	9.1	11.9	8.1
f. Other private insurance	10.9	19.9	21.8	43.2	56.7	58.5	52.0
Fraternal orders	14.9	21.7	22.6	44.2	57.2	58.5	52.0
g. Government insurance and pension funds	6.3	4.6	4.3	21.1	31.2	88.2	100.0
h. Other finance	5.1	5.5	0	0	0	0	0
6. Total	1.6	1.4	1.0	2.3	1.7	1.4	1.3

Source: National Balance Sheet, Vol. II, unless otherwise specified.

Lines 1-5, 6: Tables I and Ia.

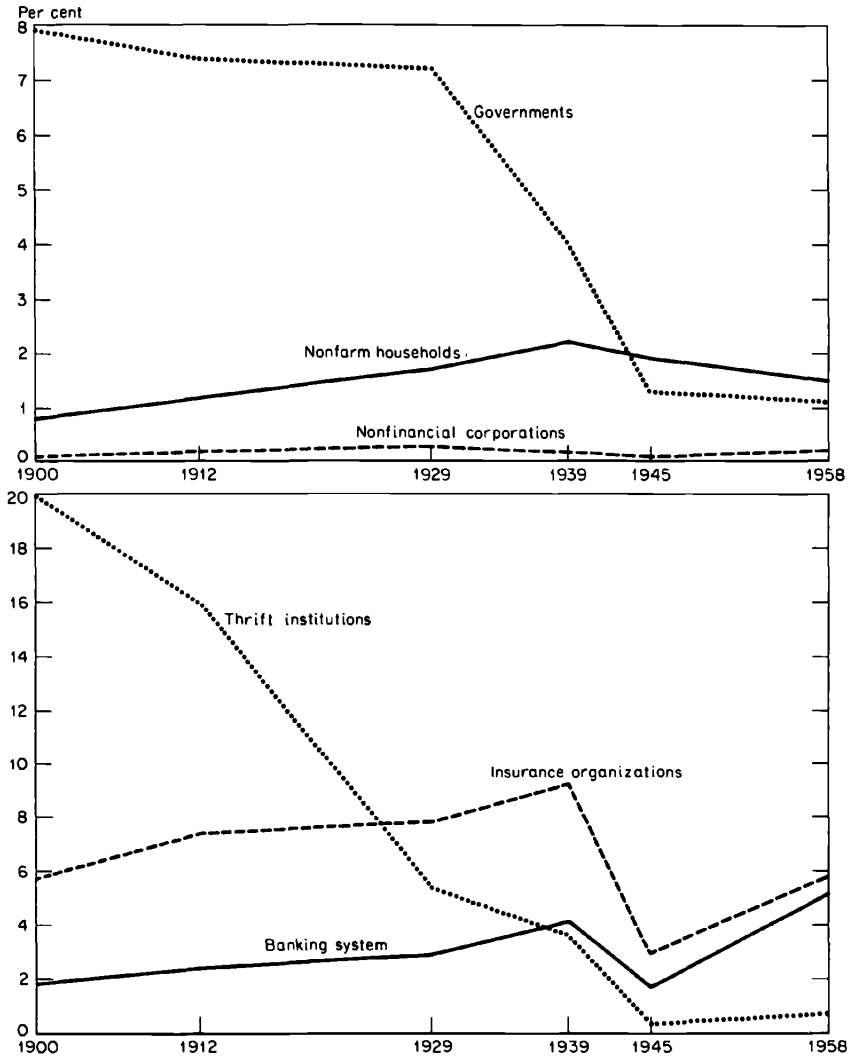
Lines 3a-3h, cols. 1-2: Tables III-5b through III-5m.

Lines 3a-3h, cols. 3-7: Numerators from Table IV-b-14a; denominators from Financial Intermediaries, Tables A-3, A-4, A-5, A-19, A-8, A-12, A-13, A-9, A-14, and A-11.

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CHART 17

SHARE OF STATE AND LOCAL GOVERNMENT SECURITIES
IN TOTAL ASSETS OF MAIN HOLDER GROUPS, 1900-58



Source: Table 66.

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pension funds, mutual savings banks, and (after 1929) fraternal orders—all holders not able to profit to a substantial extent from the tax-exemption privilege. One group for which the share of state and local government securities in total assets seems to move contrary to the presumed effects of tax exemption is property insurance companies. The increase between 1929 and 1939 of the proportion which state and local government securities constitute of the portfolio of life insurance companies, who benefit very little from tax exemption, seems to reflect the shortage of other outlets and the utilization of favorable investment opportunities in state and local government securities available during the Great Depression.

The structural changes in the market for state and local government securities before 1945 thus corroborate the effects of tax exemptions that have been observed for the postwar period. The decline in the share of these securities in the total assets of all holder groups between 1939 and 1945 is, of course, primarily a reflection of the decline in the total supply of these securities, together with a large increase in total assets caused by deficit financing by the federal government and repressed inflation during the war period. The joint effect of these forces can be seen in the decline in the ratio which state and local government securities constitute of total national assets, from 2.3 per cent in 1939 to 1.0 per cent in 1945, which followed a fairly regular increase from 1.3 to 2.3 per cent in the preceding forty years.